

33. An electro-optical device including an insulated gate field effect semiconductor device for driving a pixel of the electro-optical device comprising:

an electro-optical device including a plurality of pixels; and
insulated gate field effect devices for respectively driving said pixels, said insulated gate field effect devices each including;

a semiconductor layer including a channel region;
semiconductor source and drain regions provided in contact with said channel region at a source-channel boundary and a drain-channel boundary respectively;

a gate electrode provided adjacent to said channel region; and
a gate insulating layer interposed between said gate electrode and said channel region;

wherein said semiconductor layer is doped with oxygen in at least one boundary region in the vicinity of at least one of said source-channel boundary and said drain-channel boundary at a concentration of at least 1×10^{19} atoms/cm³.--

REMARKS

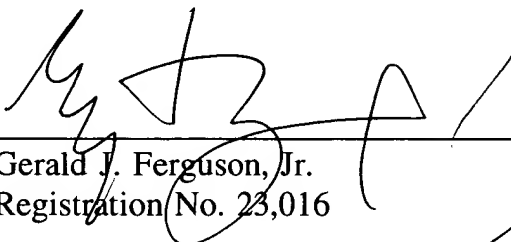
Claims 21-24 are the same as rejected claims 32 and 37-39 of the parent application. New claims 25 and 27 are similar to allowed claim 35 of the parent application but recite respectively limitations of a top-gate transistor and a bottom-gate transistor. New claims 29 and 30 are similar to allowed claim 36 of the parent application but recite also limitations of a top-gate transistor and a bottom-gate transistor, respectively. Furthermore, the "wherein" clause

of claims 29 and 30 is not exactly the same as that of parent claim 36.

New claims 31-33 are also similar to allowed claim 35 but separately recite nitrogen, oxygen and carbon.

Examination on the merits is requested.

Respectfully submitted,



Gerald J. Ferguson, Jr.
Registration No. 23,016

Sixbey, Friedman, Leedom & Ferguson, P.C.
2010 Corporate Ridge, Suite 600
McLean, Virginia 22102
(703) 790-9110

08788860 042497
264270 09588280